## What is claimed is:

1	1.	A device capable of communicating over a link to a system containing a		
2	routine under test, the routine under test generating an output upon execution, the device			
3	comprising:			
4		a display to display the output as a bitmap;		
5		a test routine; and		
6		a capture routine invocable by the test routine to extract data from a		
7	predefined region of the bitmap,			
8		the test routine adapted to receive the extracted data to perform a test		
9	procedure.			
1	2.	The device of claim 1, wherein the test procedure comprises matching the		
2		with a predetermined string.		
_	OAMMOODE CANA	<i>y</i>		
1	3.	The device of claim 1, further comprising a communications client		
2	adapted to communicate with the system.			
1	4.	The device of claim 3, wherein the communications client comprises a		
2	Telnet client.			
	_	TTI 1 C 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
1	5.	The device of claim 1, wherein the bitmap comprises an array of pixels,		
2	and wherein the predefined region comprises a rectangular region.			

- 6. The device of claim 1, wherein the test routine is adapted to provide parameters defining the predefined region when invoking the capture routine.
- 7. The device of claim 1, wherein the output comprises a table having a first column of fields and a second column of fields.

region to extract a field from the first column and a second, different predefined regio extract a field from the second column.  10. The device of claim 1, wherein the test routine is adapted to refresh the bitmap to obtain an updated output of the software application.  11. The device of claim 10, wherein the test routine is adapted to invoke the capture routine to extract the data and to perform the test procedure after each refresh  12. The device of claim 11, wherein the test routine is adapted to repeat invoking the capture routine and performing the test procedure until a time-out occurs  13. An article comprising at least one storage medium containing instruction that when executed cause a device to:  14. The article of claim 13, wherein the instructions when executed cause					
9. The device of claim 7, wherein the test routine specifies a first predefined region to extract a field from the first column and a second, different predefined region extract a field from the second column.  10. The device of claim 1, wherein the test routine is adapted to refresh the bitmap to obtain an updated output of the software application.  11. The device of claim 10, wherein the test routine is adapted to invoke the capture routine to extract the data and to perform the test procedure after each refresh invoking the capture routine and performing the test procedure until a time-out occurs that when executed cause a device to:  12. The device of claim 11, wherein the test procedure until a time-out occurs invoking the capture routine and performing the test procedure until a time-out occurs that when executed cause a device to:  13. An article comprising at least one storage medium containing instruction that when executed cause a device to:  14. The article of claim 13, wherein the instructions when executed cause and perform a test procedure using the captured value.	1	8.	The device of claim 7, wherein the predefined region is different		
1 9. The device of claim 7, wherein the test routine specifies a first predefir region to extract a field from the first column and a second, different predefined regio extract a field from the second column.  10. The device of claim 1, wherein the test routine is adapted to refresh the bitmap to obtain an updated output of the software application.  11. The device of claim 10, wherein the test routine is adapted to invoke the capture routine to extract the data and to perform the test procedure after each refresh 12. The device of claim 11, wherein the test routine is adapted to repeat invoking the capture routine and performing the test procedure until a time-out occurs 13. An article comprising at least one storage medium containing instruction that when executed cause a device to:  13. An article comprising an output of a software application under test;  14. The article of claim 13, wherein the instructions when executed cause	2	depending on whether a field from the first column or the second column is to be			
region to extract a field from the first column and a second, different predefined regio extract a field from the second column.  10. The device of claim 1, wherein the test routine is adapted to refresh the bitmap to obtain an updated output of the software application.  11. The device of claim 10, wherein the test routine is adapted to invoke the capture routine to extract the data and to perform the test procedure after each refresh  12. The device of claim 11, wherein the test routine is adapted to repeat invoking the capture routine and performing the test procedure until a time-out occurs  13. An article comprising at least one storage medium containing instruction that when executed cause a device to:  14. The article of claim 13, wherein the instructions when executed cause	3	extracted.			
region to extract a field from the first column and a second, different predefined regio extract a field from the second column.  10. The device of claim 1, wherein the test routine is adapted to refresh the bitmap to obtain an updated output of the software application.  11. The device of claim 10, wherein the test routine is adapted to invoke the capture routine to extract the data and to perform the test procedure after each refresh  12. The device of claim 11, wherein the test routine is adapted to repeat invoking the capture routine and performing the test procedure until a time-out occurs  13. An article comprising at least one storage medium containing instruction that when executed cause a device to:  14. The article of claim 13, wherein the instructions when executed cause					
a extract a field from the second column.  10. The device of claim 1, wherein the test routine is adapted to refresh the bitmap to obtain an updated output of the software application.  11. The device of claim 10, wherein the test routine is adapted to invoke the capture routine to extract the data and to perform the test procedure after each refresh 12. The device of claim 11, wherein the test routine is adapted to repeat invoking the capture routine and performing the test procedure until a time-out occurs 13. An article comprising at least one storage medium containing instruction that when executed cause a device to:  13. For exercise a bitmap representing an output of a software application under test;  14. The article of claim 13, wherein the instructions when executed cause	1		The device of claim 7, wherein the test routine specifies a first predefined		
1 10. The device of claim 1, wherein the test routine is adapted to refresh the bitmap to obtain an updated output of the software application.  1 11. The device of claim 10, wherein the test routine is adapted to invoke the capture routine to extract the data and to perform the test procedure after each refresh 12. The device of claim 11, wherein the test routine is adapted to repeat invoking the capture routine and performing the test procedure until a time-out occurs 13. An article comprising at least one storage medium containing instruction that when executed cause a device to:  1	2	region to extract a field from the first column and a second, different predefined region to			
bitmap to obtain an updated output of the software application.  1 11. The device of claim 10, wherein the test routine is adapted to invoke the capture routine to extract the data and to perform the test procedure after each refresh.  1 12. The device of claim 11, wherein the test routine is adapted to repeat invoking the capture routine and performing the test procedure until a time-out occurs.  1 13. An article comprising at least one storage medium containing instruction that when executed cause a device to:  2 receive a bitmap representing an output of a software application under test;  5 capture a value from a predefined region of the bitmap; and perform a test procedure using the captured value.  1 14. The article of claim 13, wherein the instructions when executed cause	3	extract a field from the second column.			
bitmap to obtain an updated output of the software application.  1 11. The device of claim 10, wherein the test routine is adapted to invoke the capture routine to extract the data and to perform the test procedure after each refresh.  1 12. The device of claim 11, wherein the test routine is adapted to repeat invoking the capture routine and performing the test procedure until a time-out occurs.  1 13. An article comprising at least one storage medium containing instruction that when executed cause a device to:  2 receive a bitmap representing an output of a software application under test;  5 capture a value from a predefined region of the bitmap; and perform a test procedure using the captured value.  1 14. The article of claim 13, wherein the instructions when executed cause					
1 11. The device of claim 10, wherein the test routine is adapted to invoke the capture routine to extract the data and to perform the test procedure after each refresh 12. The device of claim 11, wherein the test routine is adapted to repeat 2 invoking the capture routine and performing the test procedure until a time-out occurs 13. An article comprising at least one storage medium containing instructive that when executed cause a device to:  1	1				
2 capture routine to extract the data and to perform the test procedure after each refresh  1 12. The device of claim 11, wherein the test routine is adapted to repeat  2 invoking the capture routine and performing the test procedure until a time-out occurs  1 13. An article comprising at least one storage medium containing instructive  2 that when executed cause a device to:  3 receive a bitmap representing an output of a software application under  4 test;  5 capture a value from a predefined region of the bitmap; and  6 perform a test procedure using the captured value.  1 14. The article of claim 13, wherein the instructions when executed cause	2	bitmap to obtain an updated output of the software application.			
2 capture routine to extract the data and to perform the test procedure after each refresh  1 12. The device of claim 11, wherein the test routine is adapted to repeat  2 invoking the capture routine and performing the test procedure until a time-out occurs  1 13. An article comprising at least one storage medium containing instructive  2 that when executed cause a device to:  3 receive a bitmap representing an output of a software application under  4 test;  5 capture a value from a predefined region of the bitmap; and  6 perform a test procedure using the captured value.  1 14. The article of claim 13, wherein the instructions when executed cause	1	11	The device of claim 10, wherein the test routine is adapted to invoke the		
1 12. The device of claim 11, wherein the test routine is adapted to repeat 2 invoking the capture routine and performing the test procedure until a time-out occurs 1 13. An article comprising at least one storage medium containing instructive 2 that when executed cause a device to: 3 receive a bitmap representing an output of a software application under 4 test; 5 capture a value from a predefined region of the bitmap; and 6 perform a test procedure using the captured value. 1 14. The article of claim 13, wherein the instructions when executed cause					
invoking the capture routine and performing the test procedure until a time-out occurs  1	2	capture routi	ne to extract the data and to perform the test procedure after each refresh.		
1 13. An article comprising at least one storage medium containing instruction that when executed cause a device to:  3 receive a bitmap representing an output of a software application under test;  5 capture a value from a predefined region of the bitmap; and perform a test procedure using the captured value.  1 14. The article of claim 13, wherein the instructions when executed cause	1	12.	The device of claim 11, wherein the test routine is adapted to repeat		
that when executed cause a device to:  receive a bitmap representing an output of a software application under test;  capture a value from a predefined region of the bitmap; and perform a test procedure using the captured value.  The article of claim 13, wherein the instructions when executed cause	2	invoking the capture routine and performing the test procedure until a time-out occurs.			
that when executed cause a device to:  receive a bitmap representing an output of a software application under test;  capture a value from a predefined region of the bitmap; and perform a test procedure using the captured value.  The article of claim 13, wherein the instructions when executed cause			l'anno anteriore		
receive a bitmap representing an output of a software application under test;  capture a value from a predefined region of the bitmap; and perform a test procedure using the captured value.  The article of claim 13, wherein the instructions when executed cause	1				
test;  capture a value from a predefined region of the bitmap; and perform a test procedure using the captured value.  The article of claim 13, wherein the instructions when executed cause	2				
capture a value from a predefined region of the bitmap; and perform a test procedure using the captured value.  The article of claim 13, wherein the instructions when executed cause	3		receive a bitmap representing an output of a software application under		
perform a test procedure using the captured value.  1	4	test;			
1 14. The article of claim 13, wherein the instructions when executed cause	5		capture a value from a predefined region of the bitmap; and		
	6		perform a test procedure using the captured value.		
	1	14.	The article of claim 13, wherein the instructions when executed cause the		
Z (levice to befloth the test procedure by matching the captured variety a predotermin	2		rform the test procedure by matching the captured value to a predetermined		

- device to perform the test procedure by matching the captured value to a predetermined string.
- 15. The article of claim 13, wherein the instructions when executed cause the device to receive the bitmap in a Telnet session.

3

4

1

2

3

4

5

1

1

2

test;

1	16.	The article of claim 13, wherein the instructions when executed cause the	
2	device to receive the bitmap over a communications link from a system in which the		
3	software application under test is running.		
1	17.	The article of claim 13, wherein the bitmap represents a table generated by	
2	the software application under test.		
1	18.	The article of claim 13, wherein the instructions when executed cause the	
2	device to further define the predefined region by defining a rectangular region in the		
3	bitmap.		
1	19.	The article of claim 18, wherein the instructions when executed cause the	
2	devrice to det	fine a first region if a first output of the software application is to be extracted	

- 19. The article of claim 18, wherein the instructions when executed cause the device to define a first region if a first output of the software application is to be extracted and to define a second region if a second output of the software application is to be extracted.
  - 20. A method of performing a test, comprising:
    receiving a bitmap representing an output of a software application under
    extracting a value from a region of the bitmap; and
    performing a test procedure using the extracted value.
- 21. The method of claim 20, further comprising displaying the bitmap.
- 1 22. The method of claim 20, wherein receiving the bitmap comprises a 2 terminal receiving the bitmap over a communications link from a system in which the 3 software application under test is executing.
  - 23. The method of claim 22, wherein receiving the bitmap comprises receiving the bitmap in a Telnet session between the terminal and the system.